INSTRUCTION SHEET

D3157 ½", D3158 ¼" & D3160 ⅝"
Box Joint Templates

INTRODUCTION

When combined with the D2796 Dovetail Jig, these Woodstock Box Joint Templates allow you to quickly and accurately produce high quality box joints. Additional tool requirements include a hand-held router, a guide bushing, and a straight-cutting router bit. *Refer to the table to the right for specific guide bushing and router bit information.*

TECHNIQUE SELECTION

One of three techniques are used when making box joints with these templates. To determine which technique should be used, plug the workpiece width measurement into the formulas below. Note—*Whenever possible, cut workpiece widths so* ***Technique 1*** *can be used.*

Use Technique 1 if:

(Workpiece Width) ÷ (Template Size) = (Even Number)
Example: 4" ÷ ½" = 8

This technique is the fastest and simplest for routing box joints.

Use Technique 2 if:

(Workpiece Width) ÷ (Template Size) = (Odd Number)
Example: 4½" ÷ ½" = 9

This technique requires making and using a spacer board to rout 1 of the 2 box joint halves.

Use Technique 3 if:

(Workpiece Width) ÷ (Template Size) = (Uneven Number)
Example: 4¼" ÷ ½" = 8½

This technique often results in very thin joint fingers on the sides of the workpiece. These fingers can break easily during routing. Whenever possible, plan workpiece widths so **Technique 1** or **2** can be used.

⚠WARNING

Read and follow the manufacturer's instruction manuals for all power tools used when making box joints. Serious personal injury could result from failure to follow this warning.

SET UP

All Techniques

1. Use the chart below to select which router bit and guide bushing to use.

Template	Router Bit	Guide Bushing
D3157 ½"	½" Straight Bit	⅝" Guide Bushing
D3158 ¼"	¼" Straight Bit	5/16" Guide Bushing
D3160 ⅝"	⅝" Straight Bit	¾" Guide Bushing

2. Install the correct router bit and guide bushing on the router.

3. Adjust the router bit depth according to the formula below:

(Workpiece Thickness) + (Template Thickness) = (Correct Router Bit Depth)

4. Prepare a scrap board that is ½" wider and ¼" thicker than the workpiece.

5. Loosen the adjustment bolts on the left-side stops and adjust them to the far left of the dovetail jig.

6. Place the scrap board under the top clamp with the front edge flush with the front of the jig. Note—*Do not worry about the precise location at this time.*

7. Place the workpiece vertically in the front clamp with the top edge of the workpiece against the bottom face of the template. Note—*Do not worry about the precise location at this time.*

ROUTING BOX JOINTS

1. Follow these steps according to the technique being used.

Techniques 1 & 2 Only:
Position the left edge of the workpiece exactly 1/16" (1/32" when using the 1/4" template) to the left of one of the template fingers.

Technique 3 Only:
Center the workpiece under the template as shown in **Figure 1**.

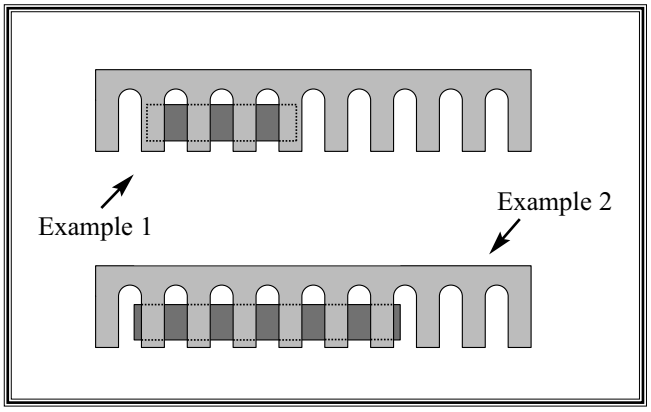

Figure 1. Workpiece centered under template.

All Techniques

2. Clamp the workpiece into position.

3. Slide the front side stop against the left side of the workpiece and retighten the adjustment bolt. Note—*If the side stop cannot be adjusted against the left side of the workpiece, re-adjust the workpiece farther to the left.*

4. Adjust the scrap board until both edges protrude equally past the workpiece edges.

5. Clamp the scrap board into position.

6. Before starting the router, position the router on the jig and make sure the bit will not hit the template or the jig.

7. Start the router and carefully rout the fingers of the box joint.

8. Turn off the router.

9. Unclamp and rotate the workpiece to rout the opposite end as shown in **Figure 2**.

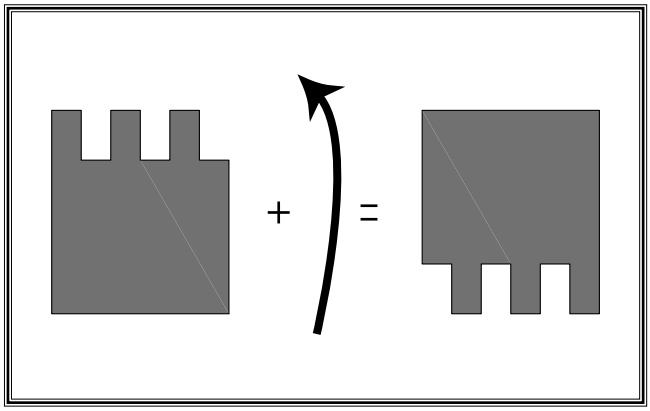

Figure 2. Flip the workpiece.

10. Follow these steps according to the technique being used.

Technique 1 Only:
Perform the same routing operation that was performed on the opposite end. The components of this box joint are complete.

Techniques 2 & 3 Only:

A. Position a spacer block equal to the width of the template size against the left edge of the work piece as shown in **Figure 3**.

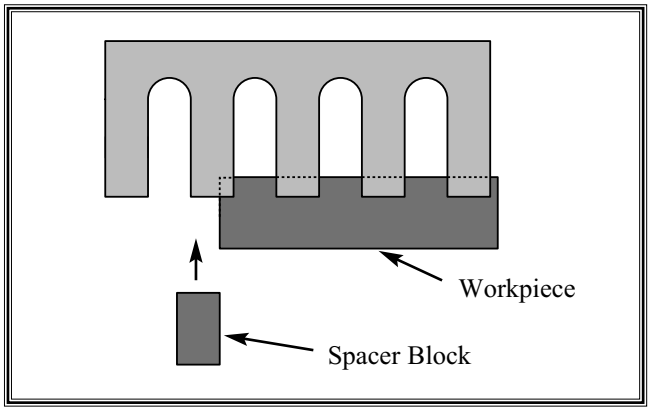

Figure 3. Spacer block.

B. Slide the spacer block/workpiece assembly against the side stop, and clamp it into position.

C. Reposition the scrap board as described in **step 4**.

D. Slowly and carefully rout the fingers of the box joint. The components of this box joint are complete.

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